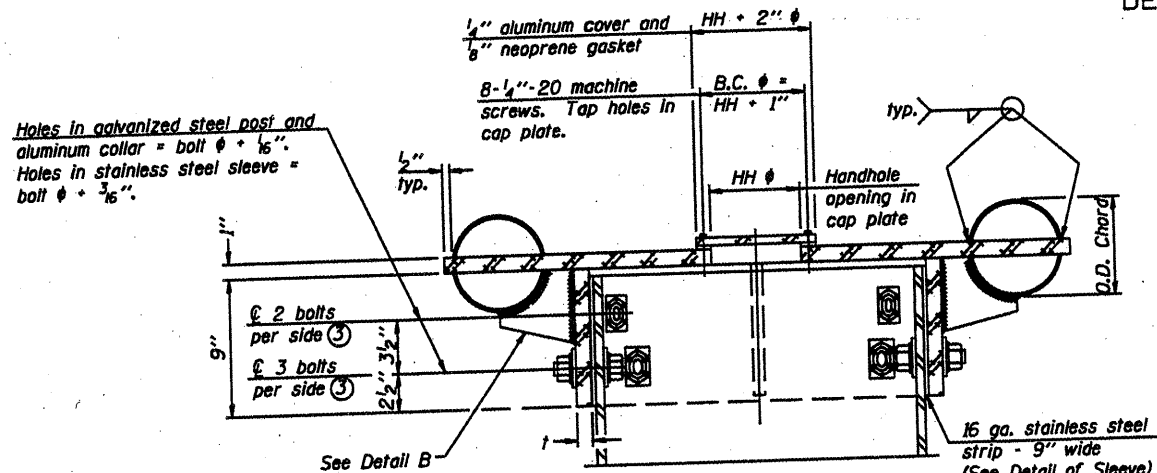


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

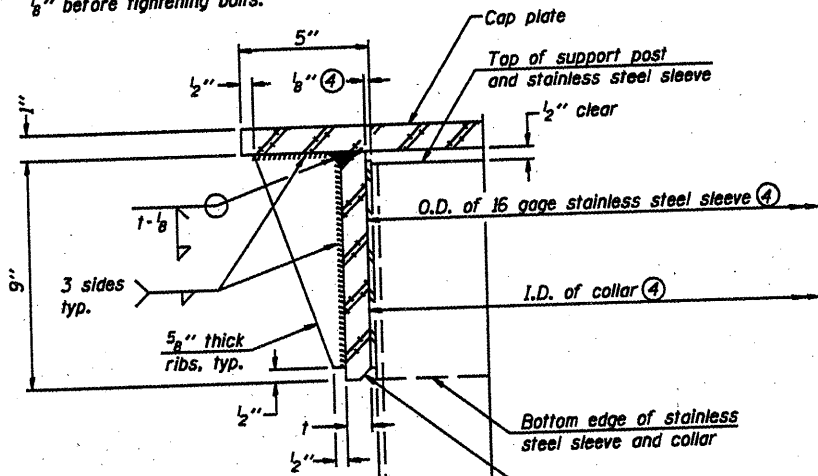
Various Routes  
D 4 OVD SIN STR REPL 2010-31  
Various Counties  
Sheet 16 of 30  
Contract Number 46095



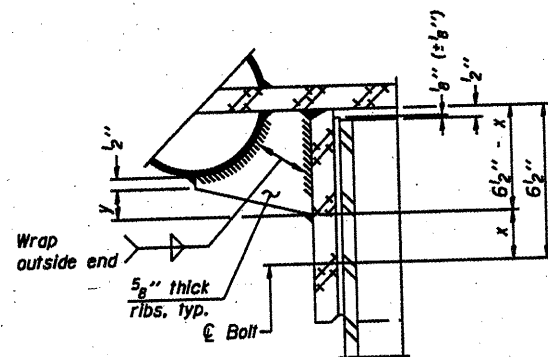
SECTION B-B

Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus  $\frac{1}{8}$ " ( $\pm \frac{1}{16}$ "). Maximum gap between post and collar at any location equals  $\frac{1}{8}$ " before tightening bolts.

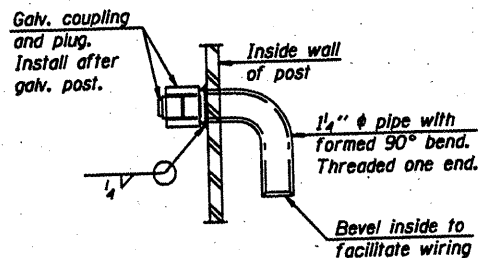


DETAIL A  
(Two locations)

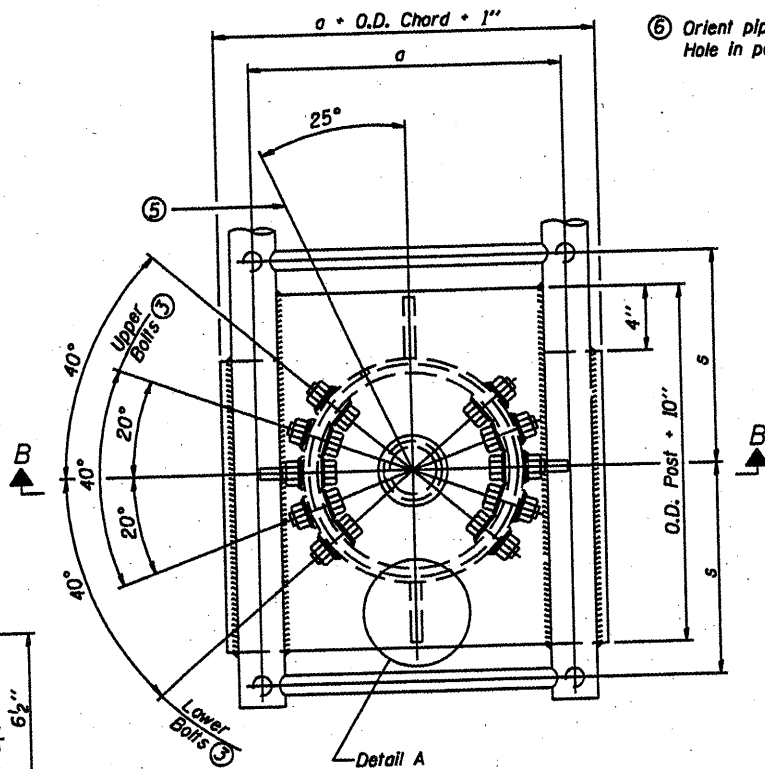


DETAIL B

Two locations  
(For details not shown, see Detail C)

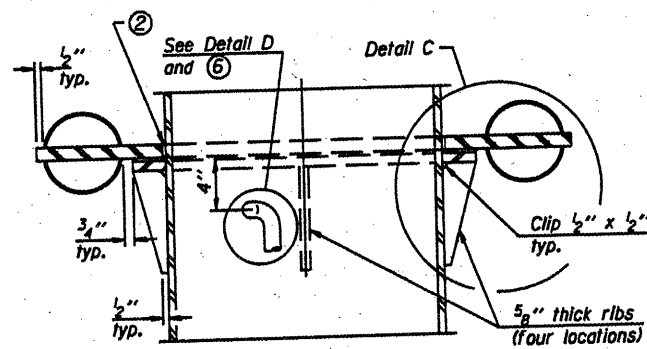


DETAIL D



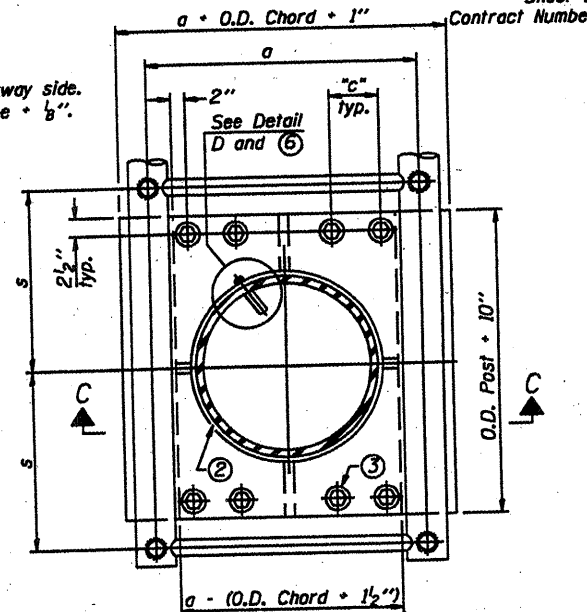
PLAN VIEW - TOP OF COLUMN

⑤ Optional full penetration weld in collar.  
(Two locations maximum....180° apart)....X-ray or UT 100%)



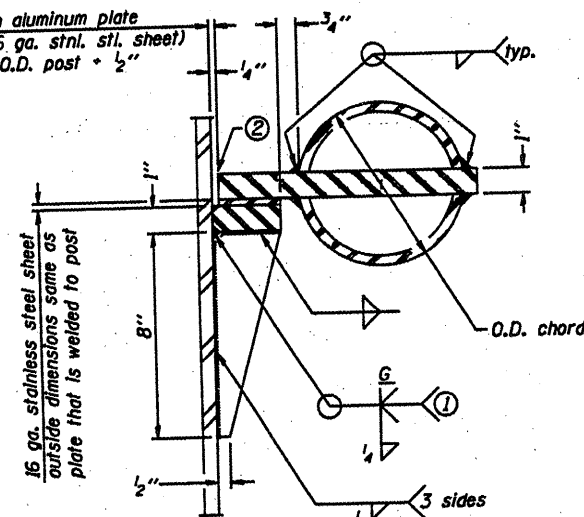
SECTION C-C

⑥ Orient pipe toward walkway side.  
Hole in post = O.D. pipe +  $\frac{1}{8}$ ".



SECTION THRU POST ABOVE LOWER CHORDS

Hole in aluminum plate (and 16 ga. stnl. stl. sheet) to be O.D. post +  $\frac{1}{2}$ "



DETAIL C

① Grind top if required to fully seat aluminum plate and stainless steel sheet.  
② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
$\frac{7}{8}$ "	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing.  
(Prepare post surface to insure tight, uniform fit and allow welding.)  
Welds to be  $\frac{1}{2}$ " long at 6" cts. along top edge and at  $\frac{1}{4}$ " opening.

NUMBER	REVISION	DATE

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	16" $\phi$ (183#/')	$\frac{7}{8}$ "	3 1/4"	8"	$\frac{5}{8}$ "	1 3/4"	2 1/4"
II-C-A	24" $\phi$ (125#/')	1"	3 1/2"	12"	$\frac{7}{8}$ "	2"	1 1/4"
III-C-A (35' max.)	24" $\phi$ (125#/')	1 1/4"	3 1/2"	12"	$\frac{7}{8}$ "	2"	1"
III-C-A (>35' to 40')	24" $\phi$ (171#/')	1 1/4"	3 1/2"	12"	$\frac{7}{8}$ "	2"	1"

③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

DESIGNED -	20
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -	

OSC-A-3

5/16/08

CANTILEVER SIGN STRUCTURES  
JUNCTURE DETAILS  
ALUMINUM TRUSS & STEEL POST

District 4  
Sign Structure Replacement